

Supporting a Collaboration Continuum




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Collaboration Environment



- Collaboration communication options
 - Meeting in person
 - Access Grid
 - Videoconference
 - Teleconference/telephone
 - E-mail
 - Directory Service
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- Increasing % of time
- Decreasing interactivity

Collaboration Realities



- Collaboration takes effort
 - Must provide a perceptible benefit
 - Must fit with current work practices
- Collaboration tools need to be used regularly (not on the shelf)
- Group must already have a strong need to collaborate

Pervasive Collaborative Computing Environment Goals



- Support ‘continuous’ collaboration
- Target daily tasks and base connectivity
- Web-based interface for ease of use/installation
- Leverage off of existing components when possible
- Standards-based components
- Leverage off the Grid services
 - Security
 - Directory services
- Access Grid is the top of the continuum

Example: PCCE Messaging Requirements



- Provides a place to find and interact with your collaborators
- Supports asynchronous and synchronous communication
- More immediate than e-mail but less intrusive than the phone (text-based)
- Supports private and group conversations
- Allows collaborator to be in multiple conversations simultaneously

Existing Tools



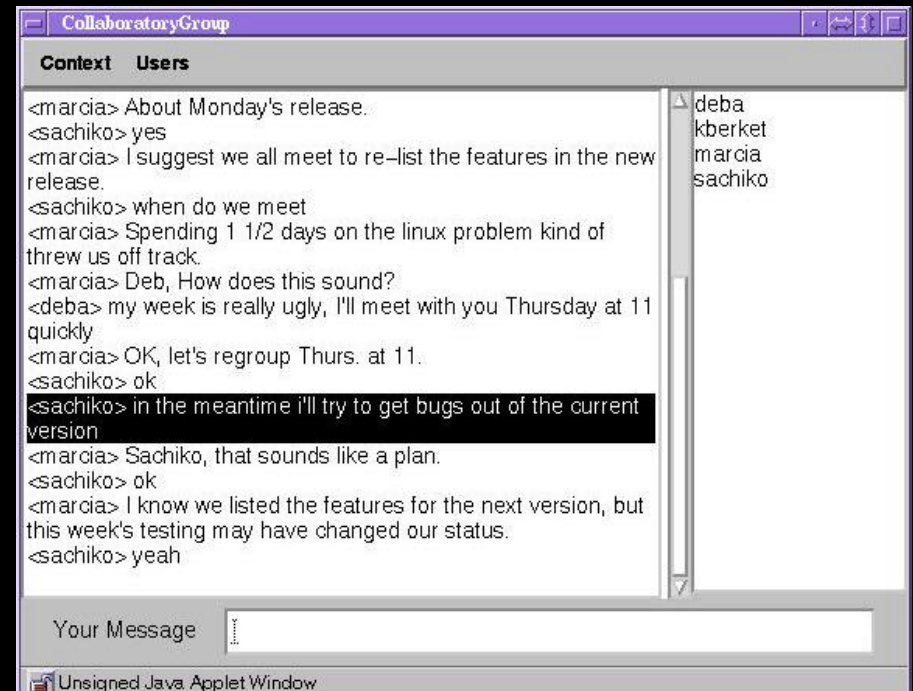
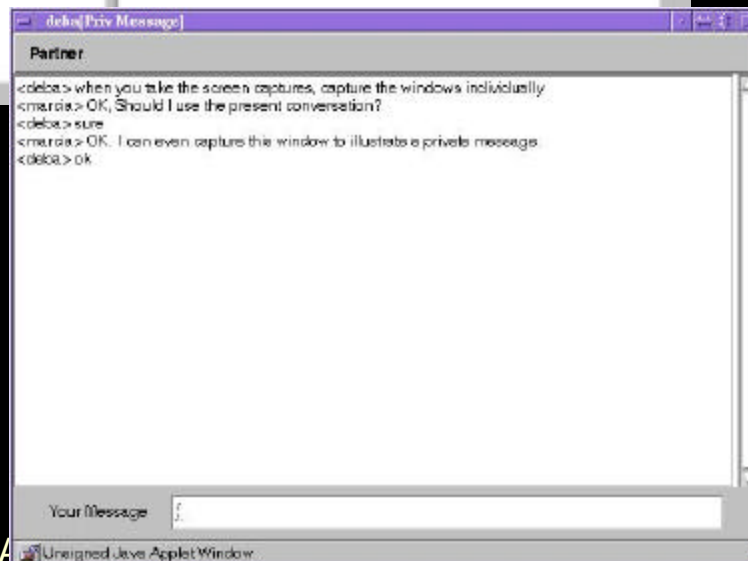
- MOO
 - Provides persistent virtual spaces
 - Can only be in one place at a time
- Instant Message
 - Support for multiple simultaneous conversations
 - Servers not available for local use
- Internet Relay Chat (IRC)
 - Support for multiple simultaneous conversations
 - Open source clients and servers available

PCCE – Messaging



- Standard IRC server (hybrid.the-project.org)
- Client is a Java applet (originally from nova-irc.sourceforge.net)
- Modified client to add enhancements
 - Permanent contexts (virtual spaces)
 - Storage of preferences and current state
 - Sounds for notification of events

PCCE Messaging Applet



Unsigned Java Applet Window

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Historical: Remote Camera Control Available



- **Goal**
 - Provide remote control capabilities for videoconferencing over the internet
- **Remote Camera Control System**
 - Drives serial-controllable video devices
 - Allows remote user to change video camera/view
 - Server accepts ASCII control requests
 - **Client designed as a Java application**

Remote Camera Control



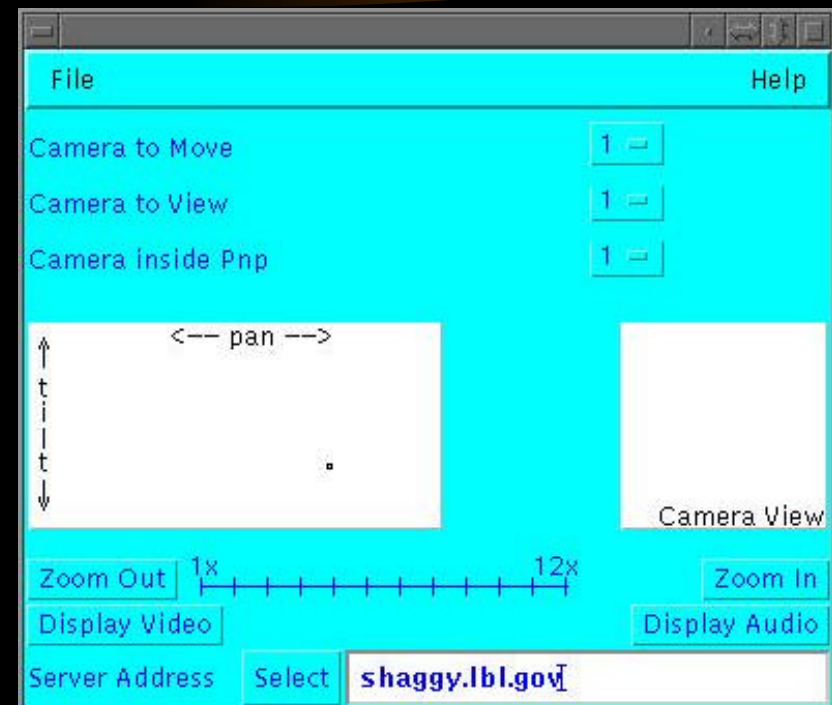
- **Platforms and supported devices**
 - Language
 - Server - C++;
 - Client – Java
 - Communication - ASCII
 - Solaris, Linux, FreeBSD, Irix, Windows 95/98/NT
 - Sony EVI-D30/D31, Canon VC-C1/VC-C3 cameras, Panasonic WJ-MX50 videoswitcher

Remote Camera Control Interface



JMF Video Player

Access Grid Retreat



Camclnt Main Window

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Conclusion



- Collaborative interactions need to be supported by a continuum of tools
 - Feeling of basic connection is critical
 - Many interactions do not require face-to-face
 - By supporting the day-to-day interactions we increase the need for and utility of Access Grid environments

URL



- <http://www-itg.lbl.gov/Collaboratories>